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10/803,682	03/18/2004	William P. Clune	05918-246001 / 7050	5924

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EXAMINER	
KEMMERLE III, RUSSELL J	

ART UNIT	PAPER NUMBER
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/803,682	CLUNE ET AL.	
	Examiner	Art Unit	
	RUSSELL J. KEMMERLE III	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14, 16-22, 24-41* is/are rejected.

7)☒ Claim(s) *15 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *15 April 2004; 9 May 2005; 27 June 2005; 17 July 2006*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 15 April 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein regarding the two German Patent documents has not been considered.

Also, the IDS filed 15 April 2004 appears to contain a typo, the reference AB only has 6 digits in the patent number (6,627,13). It was assumed that this was supposed to refer to patent 6,627,133 since that matches the inventor listed on the IDS and appears to deal with related technology. This reference is included on PTO-892 as having been considered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "R_1, R_2, R_3 and R_4" have been used to designate both apertures in Fig 12 (page 14) and rows of deposited resin in Figs 18 and 20 (page 16).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "602" and "604" have both been used to designate a transfer belt in Fig 22 (page 17).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 2R in Fig 16.

The drawings are also objected to because Fig 21 on page 12 of 12 of the drawings runs into the title of that page, making it difficult to clearly see the details of the figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: on page 16 at the second to last line a patent application is incorporated by reference, however the space for the serial number of that application has been left blank.

Claim 36 is objected to because of the following informalities: in line 3, "dirction" appears to be a typo of "direction".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 35-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The application does not explain how a resin could be extruded through a rotatable die wheel while the die wheel is stationary, since the operation of the die wheel requires that it be rotating in order to deposit discrete doses of the resin.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuman (US Published Application 2001/0018110).

Tuman discloses a method of making a mechanical fastener of a polymer or rubber material (such as a resin), where a mold roll having a plurality of cavities is positioned next to a counter-rotating pressure roll, which would define a pressure nip

(see Figs 5-7). An amount of molten polymeric material is then supplied on to the mold roll or counter-rotating pressure roll (see Figs 5-7). The material is then carried into the pressure nip, where it is forced into the cavities or the mold forming the stems of the fastener elements (Figs 5-7). The base of the material interconnects the stems as a result of the molding (see Figs 1 and 2)

Referring to claim 40, Tuman discloses that the material transferred into the nip in discrete regions corresponding to discrete doses of extruded material (see Figs 5 and 6).

Referring to claim 41, Tuman discloses that the material is laminated onto a carrier sheet (referred to as a web in Tuman) (page 3 paragraph 33).

Thus, Tuman discloses every limitation of claims 39-41, and anticipates the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14 and 16-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Tuman in view of Froeschke (US Patent 5,401,938).

Tuman is relied upon as discussed above in the rejection of claim 39-41 under 35 U.S.C. §102(b), but does not disclose that the polymeric material used to form the stems be extruded through an outer surface of a rotating die wheel.

Froeschke discloses a rotary drop former to discharge a viscous material, that is, a rotating die wheel where a viscous material is extruded through its outer surface (abstract).

It would have been obvious to one of ordinary skill in the art, at the time of invention by applicant, to have modified the invention of Tuman by depositing the discrete doses of material using the rotating die wheel of Froeschke. This would have been obvious because Tuman requires a method of depositing discrete doses of a molten polymeric (viscous) material, and Froeschke discloses that one such known

method is a rotary die wheel, which is an equivalent of the discrete dosing methods disclosed by Tuman. "Express suggestion to substitute one equivalent for another need not be present to render such substitution obvious." *In re Fout*, 675 F.2d 297, 301; 213 USPQ 532, 536 (CCPA 1982).

Referring to claim 2, Froeschke discloses a series of openings through which the material is extruded, which would result in a series of discrete regions spaced apart on the die wheel (see openings **9** in Figs 1 and 2).

Referring to claim 3, Froeschke shows openings spaced around the rotating die wheel, which would result in multiple regions of extruded material per revolution of the die wheel (Fig 1).

Referring to claim 4, Froeschke discloses multiple extrusion orifices (**9** in Figs).

Referring to claims 5 and 6, Froeschke shows orifices spaced apart along both the rotational axis and circumference of the die wheel.

Referring to claims 7 and 8, Tuman discloses that adjacent doses of resin merge under nip pressure on the carrier sheet after molding to form a contiguous layer of resin. (Figs 5 and 6).

Referring to claim 9, Froeschke shows the extrusion orifices are arranged adjacent to one another, which would dictate the spacing of the discrete doses transferred to the pressure nip, and ultimately the overall shape of the molded stems.

Referring to claim 10, Tuman discloses that the material merge to fill an overall pattern with a contiguous layer of resin (Figs 3 and 4).

Referring to claim 11, it would be obvious to one of ordinary skill in the art that the shape of the orifice of Froeschke would directly affect the shape of the material being extruded, and that when so desired an elongated orifice could be used to create the desired shape of extruded material.

Referring to claim 12, Froeschke shows the orifice (**9**) extends through the die wheel which is rotating (**8**) and adjacent to a source of the viscous material.

Referring to claim 13, while Froeschke does not specifically disclose an extrusion shoe as the source of pressurized viscous material, such a method is extremely well known in the art, and would have thus been obvious to one of ordinary skill in the art as a means for supplying the die wheel with the viscous material.

Referring to claim 14, Froeschke shows multiple openings on opposite sides of the die wheel (Fig 1).

Referring to claim 16, the openings (**9**) of Froeschke extend from an outer surface of the die wheel to an inner surface of the wheel, and would contain pressurized material therein.

Referring to claim 17, Froeschke shows a rotating sleeve (**7**) around a rotationally stationary cylinder (**6**) with an opening in hydraulic communication with the die wheel reservoir (**11, 12, 13, 14,** and **16**) where the die wheel rotates to align the orifice and opening.

Referring to claim 18, the opening of the cylinder of Froeschke is a longitudinal slot (Fig 1).

Referring to claim 19, Froeschke would require that the internal cylinder be rotationally adjusted to set the extrusion orientation of the die wheel (to be sure the opening is facing the correct direction).

Referring to claim 20, Tuman shows the polymeric material being carried to the pressure nip on the carrier sheet (Figs 5 and 6).

Referring to claim 21, in order to deposit the material onto the carrier sheet as it is deposited from the die wheel the carrier sheet would need to be positioned (trained) about the die wheel as shown by the carrier sheet and deposition method of Tuman (Figs 5 and 6).

Referring to claim 22, Tuman discloses that it is known to extrude an amount of the polymeric material from a source, and to then wipe the material from that source onto the carrier sheet (for example by blade **67** in Fig 6).

Referring to claim 24, While Tuman shows the resin being transferred to the counter-rotating pressure wheel and then carried into the pressure nip, it would be within the abilities of one skilled in the art to instead apply the material to the mold roll which then carries it into the pressure nip. This would have been obvious because it is clear that something deposited on either roll would be carried into the pressure nip and molded, and would have thus been an obvious variation of the method of Tuman for achieving the same result.

Referring to claim 25, Tuman shows the polymeric material being transferred to the pressure roll, and then carried in to the pressure nip (Figs 5 and 6).

Referring to claim 26, Tuman discloses that the polymeric material is laminated (fused) to the carrier sheet (web) in the pressure nip (Figs 1, 2, 5 and 6).

Referring to claim 27, Tuman discloses that the stems formed can be used in mechanical fastening means, and could have engageable heads (page 1 paragraph 5).

Referring to claim 28, Tuman discloses that stems can be engageable heads after only the molding operation, therefore the cavities in the mold would have to be shaped to form the engageable heads (page 1 paragraph 5).

Referring to claim 30, the combination of Tuman and Froeschke would make obvious this apparatus for the reasons discussed above (all limitations and combination of those limitations have been addressed).

Referring to claims 31-34, all limitations of these claims have been addressed in the rejections above.

Referring to claim 35, Tuman discloses extruding the resin through a stationary source of material (**63** in Fig 6, page 3 paragraph 37). It would be obvious to one of ordinary skill in the art, at the time of invention by applicant, that the method of Tuman and that of claim 35 are equivalents since they operate in the same way to deliver a molten polymeric material.

The limitation of claim 36 have been addressed above.

Referring to claim 37, the method of Tuman appear to operate where the resin falls under gravity.

Referring to claim 38, Tuman discloses examples where the material falls about 10 cm (about 4 inch) (page 4 paragraph 45).

Allowable Subject Matter

Claims 15 and 23 are objected to as being dependent upon a rejected base claim, but would currently be deemed allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RUSSELL J. KEMMERLE III whose telephone number is (571)272-6509. The examiner can normally be reached on Monday through Thursday, 7:00-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 1791

/R. J. K./
Examiner, Art Unit 1791